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## COMMUNICATION IN AGRICULTURAL EXTENSION: EXPLORING WAYS TO DELIVER INFORMATION

BY

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### ABSTRACT

The rapid development of telecommunication and computer based information technologies have brought about great change in extension. Access to ICTs in rural areas may take some years to be widely used, due to cost, lack of awareness and understanding. Advocates of improved agricultural extension delivery must work hard to ensure understanding of ICT and its widespread application in rural areas in Nigeria.

### INTRODUCTION

Since the advent of agricultural extension world wide, several approaches have been adapted for disseminating information to relevant clientele (Ogunfeditimi and Ewuola, 1995). Every nation aspires to develop or attain a higher level of development. The agricultural development of a nation is determined by proper use of some factors such as land, labour, capital and information of agricultural technologies. The effectiveness of the contribution of these factors however depends on the organization of extension activities. Information and communication technology and services can make an important contribution to sustainable development in all countries of the World (Lange, 1998).

### COMMUNICATION IN AGRICULTURAL EXTENSION

The goal of Agricultural extensions is to disseminate agricultural technologies for improving productivity, farmers' welfare and household nutritional status (Savile, 1978). Adams (1982) defined communication as process by which information is passed from source to receiver for the purpose of affecting a desired result. The model is made up of source –channel-destination (Fig. I). Communication is the means of transmitting information, emotions, values and insights (Otite and Ogionwo (1994). They explained that when one communicates, he attempts to established a "commonness" with someone; he tries to share information, and idea or an attitude. In this process, at least five elements are always required; the source, the message, the channel, the destination and the effect. The source could be an individual person or a communication organization such as radio station, Television station, newspaper and others. The message may be a piece of information, an idea or an attitude and it is sent through a channel (Otite and Ogionwo, 1994).

Channels of communication could be verbal, written and visual displays (Williams *et al.*; 1984) (Table 1). The destination may be an individual listening, watching or reading, or it may be a group such as a class of students or a farmers' organization or association. The effect or the message may be sadness, happiness, change of attitude or the beginning of certain activity (Utile and Ogionwo, 1994).

**Table 1; Channels of communication) in agricultural extension**

Verbal (channels)	Written (Channels)	Visual (channels)
Farm and home visit	Publication	Exhibitions (agricultural show)
Meetings	Bulletins	Posters, charts
Discussion Groups	Leaflets	Slides
Office calls	Magazines	Video/Television
Telephone calls	Personal letters	Flannel graphs
Radio	Circulars	Result demonstration

Source: Williams *et al.* (1984)

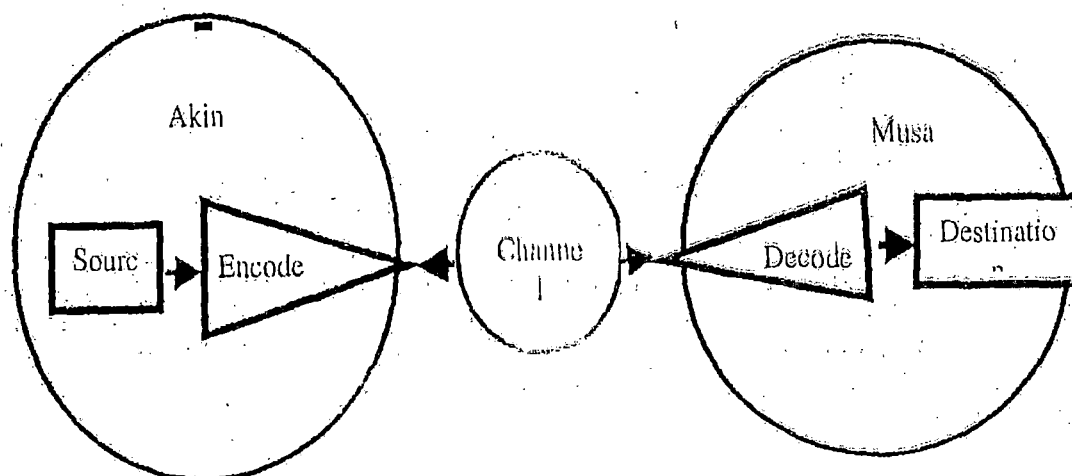


Fig. 1: Communication chain between two people.

Source: Utite and Ogionwo (1994)

A recent development on communication is the introduction of electronic means of communication such as telephone, telex, fax, computer, e-mail, Internet and mobile phones popularly called Global System for Mobile communication (GSM) (Bolaji and Alabi, 1994; Omoiayo, 2005).

### EXPLORING NEW WAYS TO DELIVER INFORMATION

The last decade has seen tremendous changes in information provision to farmers, resulting from policy changes, financial crises and revolutions in information and communication technology (ICY).

Agricultural development has long been as a requisite for economic development in the society at large (LEISA, 2002) and it is sensible to invest significantly in agricultural extension systems.

Agricultural extension systems in most developing countries are under funded and have had mixed effects; Much of the extension information has been found to be out of date, irrelevant and not applicable to small farmers' needs leaving such farmers with very little information or resources to improve their productivity (Omotayo, 2005).

According to Omotayo (2005) the poor performance of agriculture in rural areas has often been attributed to failures in the process of information transfer and lack of appropriate information; this may be responsible for low adoption, and poor impact of new technologies in the rural area which need to be addressed.

Extension is an ongoing process of getting useful information to people (the communication dimension) and assisting people to acquire the necessary knowledge, skills and attitude to utilize effectively. Extension is central in the agricultural development process, both in terms of technology transfer and human resources development. Access to information is one of the most valuable resources in agricultural development. Today, the demand for agricultural information is stronger than ever.

In the past the focus was on efficiency within the extension systems instead of alternatives. Information and Communication technologies have brought issues of communication and rural access to information to the forefront of the development agenda. People are forming new social networks, learning together and sharing knowledge across geographic and cultural boundaries. At the moment, computers and the internet are becoming part of the daily life of millions. This is giving them instant and largely free access to over 50 million pages of information on every conceivable topic and enabling them to use email and other computer application to speak to each other and exchange written messages and picture in a flash. The information network that make this possible are formed by linking computers together in to a global network of optic cable, satellites and telephone lines, known simply as the Internet (Morrow, 2002).

In spite of good intentions, all of the above—mentioned approaches did not address directly the needs of the farmers especially in rural areas. In 2000, the Ugandan government launched the "Plan for Modernization of Agriculture (PMA). The PMA is meant to be a holistic strategic framework for eradicating poverty through multi-sectoral interventions enabling people to improve their livelihoods in a sustainable manner. The PMA has got seven priority areas for action, one of which is the National Agricultural Advisory Services (NAADS) (UNFFE, 2002). The NAADS aims to be an agricultural advisory service owned by all stakeholders aimed to be an effective, efficient and sustainable organ, responsive to the needs of farmers. The programme also, aimed at engaging farmers into critical thinking and discussions regarding their agricultural endeavors and the management of

their farms as a business enterprise, rather than simply delivering messages and inputs for their own sake (UNFFE, 2002). The underlying principle is to be responsive to the needs and demands as identified by farmers themselves, who then determine the work programmes and activities of advisors. In other words, the government has now moved away from service-driven extension to demand-driven extension services (UNFFE, 2002). In Canada, in 1950s the Canadian Broadcasting Corporation (CBC) was formed and launched a new programme that was intended to specifically address the needs of farmers who were spread across the country. In 1974 CBC farm commentator George Atkins was invited as a resource person to a conference in Zambia for African farm broadcasters. There the idea for Developing Countries Farm Radio Network (DCFRN) was born (Bennett, 2002). Today, five hundred radio broadcasters, stations and training organizations in almost 100 countries participate in DCFRN. Because of its unrivalled access and its low production costs, radio is the technology that best meets the information and communication needs of farmers Worldwide (Bennett, 2002). Information Communication Technology (ICT) is creating a change in extension services. Modern information and communication technologies (ICTs) more specifically the Internet, has the potential to offer a new generation of tools for rural development (Janowski and Janowski 2002). The Internet is an inexpensive and highly effective tool to support letter writing campaigns, the gathering of signatures for petitions, donations and online discussion forums. Adopting the Internet as a primary dissemination tool cannot be done without taking into consideration extremely low rates of access in most of the developing world (Morrow, 2002). Information and communication technology include computer hardware, software, media and communication equipments can be used for the collection, storage, processing, transmission and presentation of information at a very low cost (Perry and O' Nolan, 1998).

However, some of the common major problems associated with the Internet especially in rural areas are: content (not relevant to local people), language (most rural people cannot understand English), cost (computers are expensive for local people) and skills (some technical skills are needed for operation). Omotayo (2005) suggested that developing countries can create Traditional Knowledge Digital Libraries (TKDL) to collect and classify various types of local knowledge so that it can be shared more widely. That Indigenous Technology (IT) could act as bridge between traditional and modern knowledge, ICT can also play an important role in bringing about sustainable agricultural development. Nevertheless, there is a technology that is spreading faster than the internet in the world today called mobile phones. In recent times Nigerian and other African countries have access to mobile phone. Farmers, market women and cattle pastoralists in the bush now use these extensively in rural communities in Nigeria. Extension workers and farmers can use this as a communication channel but it cannot replace extension visit to farmers because of the cost and other factors.

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